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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

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| Applicant's or agent's file reference 10058/00004 | FOR FURTHER ACTION | See item 4 below |
| International application No. PCT/US2004/035200 | International filing date (<i>day/month/year</i>) 22 October 2004 (22.10.2004) | Priority date (<i>day/month/year</i>) 22 October 2003 (22.10.2003) |
| International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237 | | |
| Applicant SCHERZER, Paul, L. | | |

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis*.1(a).
2. This REPORT consists of a total of 4 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.
3. This report contains indications relating to the following items:

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| <input checked="" type="checkbox"/> Box No. I | Basis of the report |
| <input type="checkbox"/> Box No. II | Priority |
| <input type="checkbox"/> Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI | Certain documents cited |
| <input type="checkbox"/> Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> Box No. VIII | Certain observations on the international application |
4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

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| The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 338 82 70 | Date of issuance of this report 16 January 2007 (16.01.2007) |
| | Authorized officer Beate Giffo-Schmitt e-mail: pt03@wipo.int |

Form PCT/IB/373 (January 2004)

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PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:
JOHN X. GARRED
TUCKER ELLIS & WEST LLP
925 EUCLID AVENUE
1150 HUNTINGTON BUILDING
CLEVELAND, OH 44115-1475

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

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|--|---|
| Date of mailing (day/month/year) 18 DEC 2006 | |
| Applicant's or agent's file reference 10058/00004 | |
| FOR FURTHER ACTION See paragraph 2 below | |
| International application No. PCT/US04/35200 | International filing date (day/month/year) 22 October 2004 (22.10.2004) |
| Priority date (day/month/year) 22 October 2003 (22.10.2003) | |
| International Patent Classification (IPC) or both national classification and IPC IPC: F03B 13/00(2006.01),13/10(2006.01);H02P 9/04(2006.01) USPC: 290/43 | |
| Applicant PAUL L. SCHERZER | |

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

| | | |
|--|--|--|
| Name and mailing address of the ISA/ US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201 | Date of completion of this opinion 14 September 2006 (14.09.2006) | Authorized officer Pedro J. Cuevas Telephone No. (571) 272-2021 |
|--|--|--|

Form PCT/ISA/237 (cover sheet) (April 2005)

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US04/35200

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
- ☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper
- ☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
- ☐ filed together with the international application in electronic form.
- ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US04/35200

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|--------------------|-----|
| Novelty (N) | Claims <u>NONE</u> | YES |
| | Claims <u>1-8</u> | NO |
| Inventive step (IS) | Claims <u>NONE</u> | YES |
| | Claims <u>1-8</u> | NO |
| Industrial applicability (IA) | Claims <u>1-8</u> | YES |
| | Claims <u>NONE</u> | NO |

2. Citations and explanations:

Claims 1 and 5 lack novelty under PCT Article 33(2) as being anticipated by U.S. Patent No. 3,068,659 A to W. H. Marshall, Jr.

W. H. Marshall, Jr. discloses the construction of a system and a method for heating cold fluids with production of energy comprising:

means adapted for receiving gas pressurized at a first pressure level from a first portion of an associated gas reservoir system;
means adapted for directing the pressurized gas to a turbine so as to induce motion thereof;
a generator, mechanically coupled to the turbine, the generator including means for generating electrical current induced from motion of the turbine;
means adapted for directing the gas from the turbine, after passage therethrough, to a second portion of the associated gas reservoir system at a secondary pressure level less than that of the first associated gas reservoir; and
means adapted for using at least a portion of the electrical current to drive an associated compressor, which compressor includes means for increasing the secondary pressure level.

Claims 2-4 and 6-8 lack an inventive step under PCT Article 33(3) as being obvious over U.S. Patent No. 3,068,659 A to W. H. Marshall, Jr. in view of U.S. Patent No. 6,374,591 B1 to Johnson et al.

W. H. Marshall, Jr. discloses the construction of a system and a method for heating cold fluids with production of energy as disclosed above.

Johnson et al. discloses the construction of a liquefied natural gas (LNG) fueled combined cycle power plant and a (LNG) fueled gas turbine plant comprising:

means adapted for directing a gas to an associated combustor generator so as to generate electrical combustion thereof;
means adapted for directing the electrical current to a compressor; and
gas reservoirs in fluid communication.